



### Cryogenic Safety Valves, angle type, stainless steel, PN50, type tested TÜV-SV. 780. S/G

Full lift safety valve, orifice  $d_0=23\text{mm}$  standard safety valve,  
with carbon filled PTFE valve seal, closed bonnet  
"cleaned and degreased for oxygen service"

#### Part No. 06383.X.0000

Inlet: male thread type G (BSPP) acc. to ISO 228/1, Outlet: female thread type G (BSPP) acc. to ISO 228/1

#### Part No. 06383.X.2000

Inlet: male thread type R (BSPT) acc. to ISO 7/1, Outlet: female thread type G (BSPP) acc. to ISO 228/1

#### Part No. 06383.X.5000

Inlet: male thread NPT acc. to ANSI B 1.20.1, Outlet: female thread type G (BSPP) acc. to ISO 228/1

#### Part No. 06383.X.6000

Inlet: male thread NPT acc. to ANSI B 1.20.1, Outlet: female thread NPT acc. to ANSI B 1.20.1



#### Applications:

Provided as safety device for protection against excessive pressure in stationary and moveable gas cylinders.

Approved for air gases, vapours and cryogenic liquefied gases e.g. oxygen ( $O_2$ ), nitrogen ( $N_2$ ), argon (Ar), hydrogen ( $H_2$ ), helium (He), carbon dioxide ( $CO_2$ ), carbon monoxide (CO), methane ( $CH_4$ ), ethane ( $C_2H_6$ ), ethylene ( $C_2H_4$ ), incl. LPG und LNG.

Working temperature:  $-196^\circ\text{C} / -321^\circ\text{F}$  (77K) up to  $+185^\circ\text{C} / +365^\circ\text{F}$  (458K)

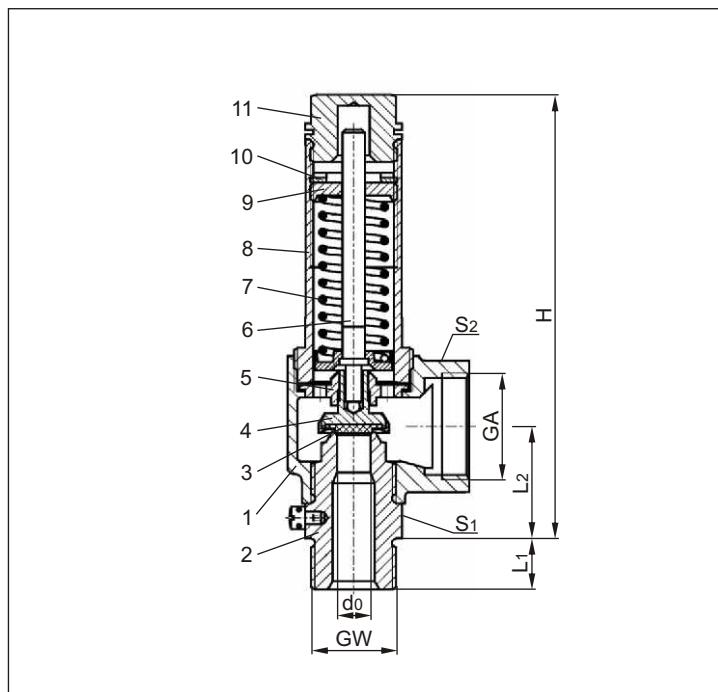
Materials	DIN EN	ASME / ASTM
1 Outlet body	1.4308	SA-351.CF 8
2 Inlet body	1.4301	SA-479.304
3 Valve seal	PTFE / Elektrocarbon (25%)	
4 Disc	1.4301	SA-479.304
5 Guide plate	1.4301	SA-479.304
6 Stem	1.4301	SA-479.304
7 Spring	1.4571	SA-479.316Ti
8 Bonnet	1.4308	A 351 CF 8
9 Spring clamp	1.4301	SA-479.304
10 Thread ring	1.4301	SA-479.304
11 Cap	1.4301	SA-479.304

**Essential:** Valves are delivered at a set pressure,  
therefore when ordering please confirm set  
pressure, medium and temperature.

Standard marking acc. to Pressure Equipment  
Directive 97/23/EC (PED) and ASME Code  
Section VIII.



Marking acc. to Directive 99/36/EG (TPED) will only  
be carried out by written notice on purchase order.



Type 06383	Technical data							
Nominal size	GW	1/2	3/4	1/2	3/4	1	1-1/4	1-1/2
Orifice	$d_0$	7.0	7.0	10.5	10.5	15.0	23.0	23.0
Dimension code	.X.	0704	0706	1004	1006	1510	2312	2314
Set pressure range	bar	3.3-50.0	3.3-50.0	2.9-50.0	2.9-50.0	2.9-50.0	2.0-50.0	2.0-50.0
Outlet	GA	1	1	1	1	1-1/4	2	2
Height	H	140	140	140	140	157	218	218
Length	L <sub>1</sub>	14	16	14	16	18	20	20
Length	L <sub>2</sub>	36	36	36	36	42	56	56
Wrench size across flats	S <sub>1</sub>	30	30	30	30	41	55	55
Wrench size across flats	S <sub>2</sub>	41	41	41	41	50	70	70
Weight	ca. kg	0.78	0.80	0.76	0.79	1.27	3.05	3.10
Coefficient of discharge	$\alpha_w$	0.82	0.82	0.58	0.58	0.5	0.62	0.62

Dimensions in mm.

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### Discharge capacities

Medium:

Air in m<sup>3</sup>/h at 0°C and 1013.25 mbar

Air in SCFM at 0°C and 1013.25 mbar

The capacity indicated below is for a fully opened valve.

d<sub>0</sub> - orifice

A<sub>0</sub> - flow area

**Calculation of discharge capacity acc. to AD2000-Merkblatt A2 / DIN EN ISO 4126-1 resp. ASME Code Sec. VIII.**  
**The Safety Valve is marked with the lower capacity of both calculations.**

Set pressure in bar (ü)	GW d <sub>0</sub> (mm) A <sub>0</sub> (mm <sup>2</sup> ) Medium	Air in m <sup>3</sup> /h					Set pressure in psig	GW d <sub>0</sub> (inch) rated slope Medium	Air in SCFM						
		1/2	3/4	1/2	3/4	1			1/2	3/4	1/2	3/4	1	1-1/4	1-1/2
		7.0	10.5	15.0	23.0	0.276			0.414	0.591	0.907	0.907	0.907	0.907	0.907
<b>Air in m<sup>3</sup>/h</b>															
<b>2.0</b>		-	-	-	-	564	<b>50</b>		60	102	180	524			
<b>2.9</b>		-	144	253	737		<b>60</b>		70	118	208	607			
<b>3.0</b>		-	148	260	757		<b>70</b>		79	134	236	690			
<b>3.3</b>		94	159	279	815		<b>80</b>		89	150	265	772			
<b>4.0</b>		109	185	326	950		<b>90</b>		98	167	294	855			
<b>5.0</b>		132	223	392	1143		<b>100</b>		107	183	322	938			
<b>6.0</b>		153	260	458	1336		<b>110</b>		117	199	350	1021			
<b>7.0</b>		176	298	524	1529		<b>120</b>		126	215	379	1104			
<b>8.0</b>		197	336	590	1721		<b>130</b>		136	231	407	1187			
<b>9.0</b>		220	373	657	1914		<b>140</b>		145	248	435	1269			
<b>10.0</b>		241	411	723	2107		<b>150</b>		155	264	464	1352			
<b>12.0</b>		286	486	855	2493		<b>175</b>		179	304	535	1559			
<b>14.0</b>		330	561	988	2879		<b>200</b>		202	345	606	1766			
<b>16.0</b>		374	637	1120	3265		<b>225</b>		226	384	677	1973			
<b>18.0</b>		418	712	1252	3651		<b>250</b>		250	425	748	2180			
<b>20.0</b>		463	787	1385	4037		<b>275</b>		273	465	818	2386			
<b>22.0</b>		507	862	1517	4423		<b>300</b>		297	506	889	2593			
<b>24.0</b>		551	938	1650	4809		<b>325</b>		321	546	961	2800			
<b>26.0</b>		595	1013	1782	5195		<b>350</b>		345	586	1032	3007			
<b>28.0</b>		639	1088	1914	5581		<b>375</b>		368	627	1103	3214			
<b>30.0</b>		684	1163	2047	5967		<b>400</b>		392	667	1174	3421			
<b>32.0</b>		728	1239	2179	6353		<b>425</b>		416	707	1244	3628			
<b>34.0</b>		772	1314	2311	6739		<b>450</b>		439	748	1315	3835			
<b>36.0</b>		816	1389	2444	7125		<b>475</b>		463	788	1386	4042			
<b>38.0</b>		860	1464	2576	7511		<b>500</b>		487	828	1457	4249			
<b>40.0</b>		905	1540	2709	7897		<b>525</b>		510	869	1529	4456			
<b>42.0</b>		949	1615	2841	8282		<b>550</b>		534	909	1600	4662			
<b>44.0</b>		993	1690	2973	8668		<b>575</b>		558	950	1670	4869			
<b>46.0</b>		1037	1765	3106	9054		<b>625</b>		605	1030	1812	5283			
<b>48.0</b>		1082	1841	3238	9440		<b>675</b>		653	1111	1954	5697			
<b>50.0</b>		1126	1916	3370	9826		<b>725</b>		700	1192	2096	6111			